Record Nr. UNINA9910483061303321 Biofilm-mediated diseases: causes and controls // Rina Rani Ray, **Titolo** Moupriya Nag, Dibyajit Lahiri, editors Pubbl/distr/stampa Gateway East, Singapore:,: Springer,, [2021] ©2021 **ISBN** 981-16-0745-1 Edizione [1st ed. 2021.] 1 online resource (XI, 284 p. 42 illus., 35 illus. in color.) Descrizione fisica Disciplina 616.01 Soggetti Medical microbiology **Biofilms** Microbiologia mèdica Llibres electrònics Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di contenuto 1 Introduction to Bacteria and Acute Infections -- 2 Quorum sensing --3 Bacteria and Biofilms as Natural Inhabitants of our Body -- 4 Biofilms and Acute and Chronic Infections -- 5 Bacterial and Biofilms in Chronic Infections and Nosocomial Diseases -- 6 Immune Response to Biofilm -- 7 Biofilm in Medical Appliances -- 8 Biofilm and Antimicrobial Resistance -- 9 Inhibition of Biofilm Formation -- 10 Novel and Future Treatment Strategies for Biofilm Associated Infections -- 11 Biofilmthe Unknown Armour in the Arsenal of Bacteria: A Case Study. Sommario/riassunto This book reviews the current concepts in biofilm formation and its implications in human health and disease. The initial chapters introduce the mechanisms of biofilm formation and its composition. Subsequently, the chapters discuss the role of biofilm in acute and chronic infections. It also explores the pivotal role of both innate and adaptive immunity on the course of biofilm infection. In addition, the book elucidates the bacterial biofilm formation on implantable devices and the current approaches to its treatment and prevention. It analyzes the possible relationship between antimicrobial resistance and biofilm formation. Finally, the book also summarizes the current state-of-theart therapeutic approaches for preventing and treating biofilms. This

book is a useful resource for researchers in the field of microbiology, clinical microbiology, and also medical practitioners.